To begin my defense of the analytic-synthetic dichotomy I shall look askance at another dichotomy, the distinction between so-called natural languages, on the one hand, and constructed or “artificial” ones,\(^1\) on the other. The “natural languages,” for many philosophers, seem to be those to which explicit rules and stipulations are not applicable. Now of course one could (stipulatively!) define ‘natural language’ in such a manner; but, unfortunately, such languages exist only in the pipe dreams of philosophers. For all actual languages contain the apparatus for “explaining”—for specifying—meanings of their terms; and, I contend, statements of a form such as “‘—’ means . . .” should be regarded as prescriptive or stipulative in force; it is a variant of the naturalistic fallacy to regard them as descriptive assertions or, even, as functioning chiefly to convey information about how anyone, as a matter of fact, does (as opposed to should or is to) use language.\(^2\) And the important point is this apparatus is put to frequent use, not only by philosophers and by scientists, but by the ordinary man using “ordinary language.” Furthermore, it either is or ought to be used in all contexts which are of any philosophic interest. I for one sub-


Professor Putnam has told me that his stimulating article in this volume resulted from his disagreement with some views of mine contained in an informal research memorandum. Since I have not been entirely convinced by Professor Putnam’s essay, it seems not inappropriate to express my largely unregenerate views in this space.

\(^1\) In both instances, I am concerned with languages and not, for example, with uninterpreted calculi.

\(^2\) I cannot but believe that this fallacy is at the root of much of what is contained in the famous “Two Dogmas” paper. Quine conceives of statements involving meaning talk as statements which are ostensibly confirmable or disconfirmable by data concerning actual linguistic practices. He sees the difficulties involved in such a view and becomes inclined to throw out meanings (and, thus, analyticity) altogether.

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scribe to the commonplace that many disputes and problems which are purportedly about substantive matters are actually due to conceptual (linguistic) difficulties. And many of them can be resolved only by stipulations which “tighten up” or modify certain concepts and which “create” certain other, new ones. Thus, many, many contexts of use of “natural languages” are, and many others ought to be, shot through and through with something like what is sometimes called ‘rational reconstruction.’ In order to avoid the somewhat narrow connotations of this term, I have used the expression ‘rational reformation’ to refer either to the process or to the product of issuing rules or stipulations concerning meaning and use, whether this be full-fledged formalization, explanation, or merely the issuance of one simple rule or stipulation.

Next, I take any sentence of the form ‘Sentence S is analytic (in the broad sense) in this context’ to be a signal to the effect that, within the rational reformation to be used in the context in question, the meanings of the terms of S are to be taken as such that S is unconditionally assertable. Note that according to this, strictly speaking, it is proper to ascribe analyticity to a sentence only with reference to its being within a rational reformation. However, we might take ‘S is analytic (full stop!)’ to mean the same (roughly) as ‘Within any reasonable reformation, S would be unconditionally assertable.’

In the sense of ‘analytic’ which I am recommending, all analytic sentences are totally devoid of “factual content.” To use Max Black’s helpful terminology, analytic sentences are (object language) surrogates for linguistic rules.\(^3\) Of course, a sentence which is analytic in one context may be synthetic in another; in this case, it is always correct to say that some of the terms of the sentence (and, a fortiori, such sentences themselves) change their meaning from context to context.

But although analytic sentences do not even convey, in any straightforward manner, factual information (not even information about linguistic practice), facts are involved here in the following manner. When we give reasons for adopting rules or stipulations which render certain sentences analytic we usually appeal to facts. Thus we may point to the (linguistic) fact that most people have a certain set of habits involving the word ‘bachelor,’ and argue that if we adopt a stipulation (along with certain others) which renders ‘All bachelors are unmarried’ analytic, then

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the resulting meaning of ‘bachelor’ will be such that its use in our rational reformation will correspond quite closely to its “ordinary use.” Or we might appeal to the (nonlinguistic) fact that no causal chain can be propagated with a velocity greater than the velocity of light in vacuo as one of the reasons for adopting a stipulation which renders ‘The one-way speed of light is independent of its direction’ analytic (and factually empty). (See Professor Grünbaum’s essay in this volume.)

Among the simple kinds of rules we shall consider is the explicit definition, which, for the sake of convenience, we shall take to have the form exemplified as follows:

‘Bachelor’ is to mean the same as ‘unmarried, adult, male human.’ Explicit definitions are of relatively minor interest here, partly because of their relatively transparent role and partly because they are, in principle, entirely dispensable.

Next, there are what might be called “partial explicit definitions.” Just as in a rational reformation which embodies the explicit definition given above, the sentence, for example, ‘All bachelors are unmarried’ becomes analytic, a reformation could adopt a stipulation which would render ‘All dogs are mammalian’ analytic. (Needless to say, any reasonable reformation of ordinary English would adopt both of these particular stipulations.) In the latter case the relevant stipulation might be (roughly), “Nothing is to be taken as an element of the extension of ‘dog’ unless it is mammalian and…” (I assume that no satisfactory (“complete”) explicit definition can be given for ‘dog.’) This stipulation gives some but not all of the “defining characteristics” of dogs.

Finally, the most interesting group of analytic sentences consists of those whose corresponding stipulations are neither explicit definitions nor partial explicit definitions. Examples of such sentences are ‘Nothing can be red and green in the same respect at the same time’ and ‘The one-way speed of light is independent of its direction.’

My “analytic sentences” are, of course, quite similar to Carnap’s “meaning postulates” and, indeed, I am indebted to him for some of the terminology I shall henceforth adopt.4

Now there are certain rules which, it would seem, must either be explicitly adopted or conformed to in actual practice in the use of any conceptual system whatever, i.e., the basic principles of logic. For example,


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it follows from any reasonable meaning which can be given to ‘language’ and ‘conceptual system’ that any “system” which does not conform, say, to the principle of noncontradiction is not a language or a conceptual system. Let us, after Carnap, call sentences which are rendered analytic by these rules L-true. Roughly speaking, L-true sentences will be those true sentences which contain only logical terms or which contain descriptive terms only vacuously. Let us call all other analytic sentences, A-true.5 Thus ‘analytic’ in the broad sense includes both A-true and L-true sentences.

Let us turn to a brief explication of the notion of implicit definition as it will be used in this paper. I shall say that a descriptive (i.e., nonlogical) term is implicitly defined (always relative to a given reformation, of course) by the set of all L-independent A-true sentences which contain the term nonvaguely, provided the term is one for which no (“complete”) explicit definition is given.6 In the sense thus adopted, implicit definition never affords a complete specification of meaning. Terms so defined either remain open-textured or enjoy whatever additional meaning they may possess by virtue of “ostension.”

But have I been playing fast and loose with dangerous terms such as ‘meaning’ and ‘factually empty’? I am sorry, but I believe that, in spite of frequent manhandling, they are perfectly good terms. It is true that no helpful explicit definitions can be given for them, but the same is true for any indispensable term. I have been trying to clarify somewhat the sense in which I use them by giving a part of their implicit definition in the rational reformation of the metalanguage which I am, at present, adumbrating.

Are all accepted lawlike sentences, particularly theoretical postulates and/or “correspondence rules,” analytic in a broad sense (W. Sells)? Or are all (A. Pap—at least, all theoretical postulates) or some (M. Scriven) of them of such a nature that questions concerning their analyticity can-


6 We could have omitted the provisional clause, in which case explicit definition would, in a sense, be a special case of implicit definition. More precisely, the explicitly defined term would be implicitly defined by the object-language surrogate of the explicit definition. For example, ‘bachelor’ would be implicitly defined by the (one) A-true sentence, ‘Something is a bachelor if and only if it is an unmarried, male, adult human.’ In fact, if the term ‘A ↔ B’ is taken as being in the object language, it seems felicitous to think of it as an abbreviation of the corresponding biconditional, but with the ‘↔’ also serving as a signal that the biconditional is A-true.
not be settled and, indeed, cannot be properly asked? Or is the analytic-synthetic distinction itself a “dogmatic,” “untenable dualism” (W. V. Quine, M. White) or, at best, a distinction of “overwhelming unimportance” (H. Putnam)? I do not believe that it is necessary to give an affirmative answer to any of these questions. However, it is easy to give extremely plausible arguments for some, or all, of these views, particularly as far as they concern theoretical terms. Since the more interesting of these terms are not explicitly defined and since they cannot enjoy their meaning, in any straightforward way, by virtue of “ostension,” it seems that we must say that they are implicitly defined by postulates and “correspondence rules.”† However, according to the position herein advocated, it is only a proper subset of the postulates-plus-“C-rules” which play a part in this implicit definition; and the members of this subset are all A-true and, thus, factually empty.

But, I shall be asked, is it not the case that in most theories, the postulates are all more or less on a par with each other? Which are the A-true postulates and which are the “factual ones”? The answer is, of course, that it depends upon the context—upon the rational reformation which is used or presupposed. A postulate which is A-true in one context may be contingent in another. This entails that the meanings of some of the terms involved change from context to context. Is such “conceptual instability” of theoretical terms undesirable? I do not think so; at any rate, it is unavoidable. Consider the often-used example concerning the concept of force. Arguing, even, from actual use, we may say that in some contexts, the most reasonable reformation would take ‘f = ma’ as A-true; in this case, ‘force’ would mean the same as ‘mass times acceleration.’ (This is, to be sure, a very simple example, for if ‘f = ma’ defines ‘force,’ it defines it explicitly rather than implicitly.) In other contexts, the most reasonable reformation would take ‘f = ma’ as contingent, and ‘force’ would obtain its (different) meaning from other principles, e.g., Hookes law, restricted to certain appropriately narrow limits.⁸

This approach, it seems to me, is adequate for solving not only many of the problems about the meaning of theoretical terms but, also, some

† The (more or less established) use of the word ‘rule’ here is unfortunate. In almost any reformation, some so-called correspondence rules will be factual sentences and others will be A-true. The same is true, of course, of the “postulates.”


* Pap, loc. cit.; Scriven, loc. cit.; Putnam, loc. cit.

⁸ Feigl, loc. cit.